Chemical Biological Radiological Nuclear (CBRN)
Unmanned Ground Reconnaissance (CUGR)
Advanced Concept Technology Demonstration (ACTD) Proposal

BACKGROUND: The Joint Requirements Office for Chemical, Biological, Radiological and Nuclear Defense (JRO-CBRND) has recognized the limitations of the current chemical agent surface liquid detection capability and identified the need for an enhanced capability to detect threat chemical agent surface contamination. While the U.S. has introduced Unmanned Ground Vehicles (UGV's) with mission specific payload packages to conduct a variety of MOUT reconnaissance operations, no NBC specific packages have been incorporated to perform surface or point NBC reconnaissance. The CBRN Unmanned Ground Reconnaissance (CUGR) ACTD will exploit Next Generation Sensor (NGS) technology to demonstrate the enhanced capability for existing mounted reconnaissance platforms and demonstrate the military utility of unmanned ground reconnaissance systems for CBRN missions.

PROGRAM SUMMARY:
The CUGR ACTD will have two technology thrust areas: Contaminated Surface Detection (CSD) which satisfies the need to improve the speed and spectrum for detection (e.g., chemical and biological warfare agents, toxic industrials chemicals non-traditional agents) of manned NBC reconnaissance (mounted) systems; and the CBRN Unmanned Ground Vehicle (CUGV) which expands the capability to conduct NBC reconnaissance in restricted terrain. CUGR ACTD total cost is estimated at $47.4M. The ACTD developmental timeline is as follows.

- FY04: Establish functional requirements and concepts of operation.

- FY05: ACTD commencement. CSD and UGV design and continued CONOPS development

- FY06: CSD demonstration and UGV prototype integration.

- FY07: UGV demonstration.

DISCUSSION POINTS:
The CUGR ACTD will improve the speed and capability of traditional CBRN zone, area, and route reconnaissance, as well as providing unmanned and restricted terrain reconnaissance. The strategic and operational focus of CUGR will be to enhance Joint and Combined Force commanders continuous and critical CBRN awareness to the Intelligence Preparation of the Battlespace (IPB) process while mitigating the risk to maneuver and supporting forces.